



Coastal Protection and
Restoration Authority of Louisiana

Shell Island West NRDA Restoration

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Engineering
May 6, 2014



committed to **our coast**

Presentation Outline

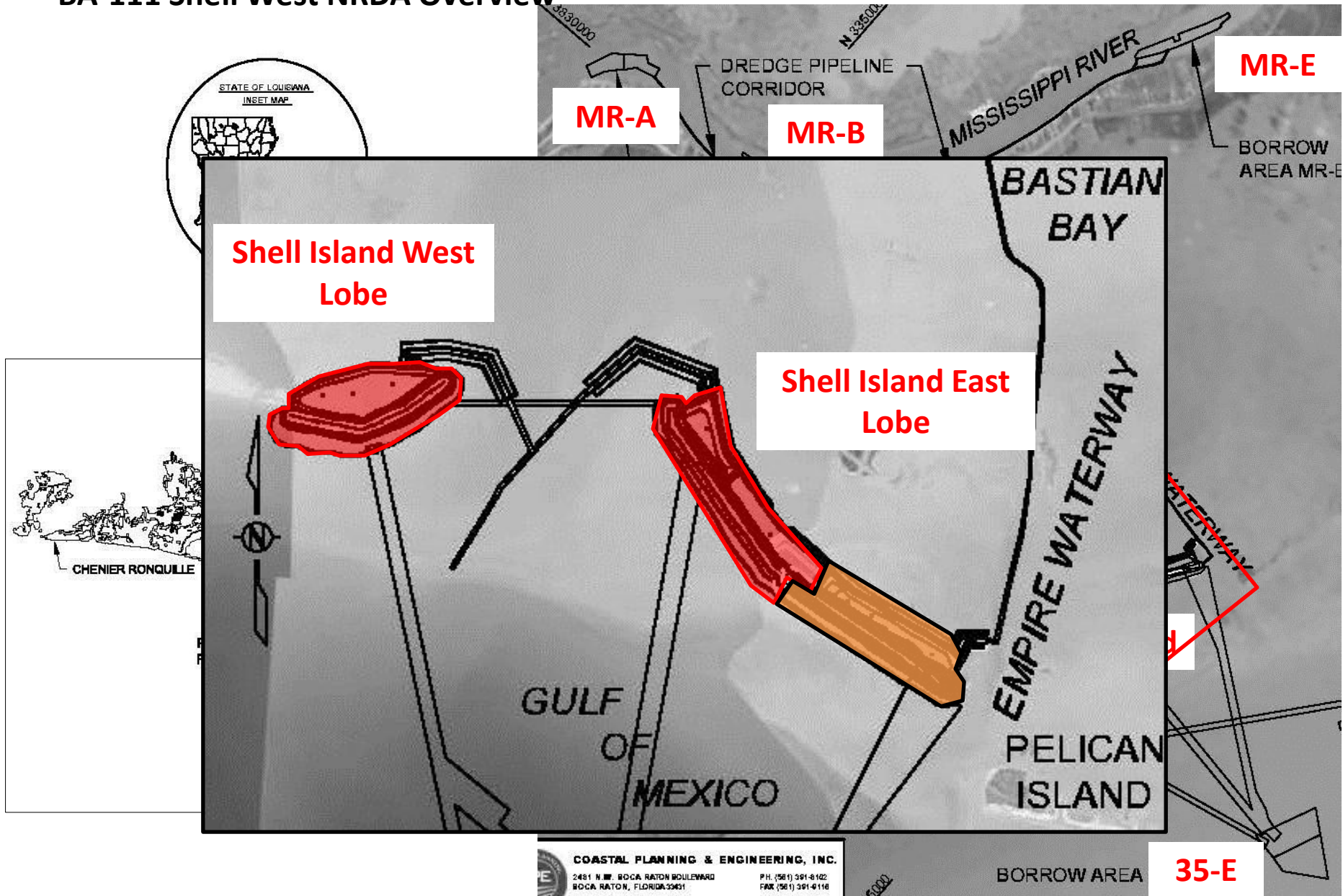
- Project Background
- Project Overview Map
- Project Features
 - East Lobe
 - West Lobe
- Borrow Areas
 - Mississippi River – Dune/Beach & Sand Flat
 - Offshore – Marsh Fill
- Project Schedule Overview
- Summary

Project Background

Shell Island West NRDA Restoration Project (BA-111)

- LCA Barataria Basin Barrier Shoreline (BBBS) Restoration Project
- Emergency Berm Project constructed in 2010 in response to the Deepwater Horizon Oil Spill, constructed a portion of the Shell Island East Lobe (W8).
- Shell Island East Berm Barrier Island Restoration Project (Shell East Berm), constructed in 2013 with Berm Enhancement Funds.
- Shell Island West NRDA Restoration Project (Shell West NRDA) is the construction of the remainder of the East Lobe and the entire West Lobe.
- Shell West NRDA is awaiting funding.

BA-111 Shell West NRDA Overview



Shell Island East Berm Project

August 15, 2013 was the last day of dune fill placement.



April 1, 2014

Shell Island East Barrier Island Restoration

Image # 140401 6178
Date 04.01.14

 727.520.8181
www.aerophoto.com



September 9, 2013

Shell Island East Barrier Island Restoration

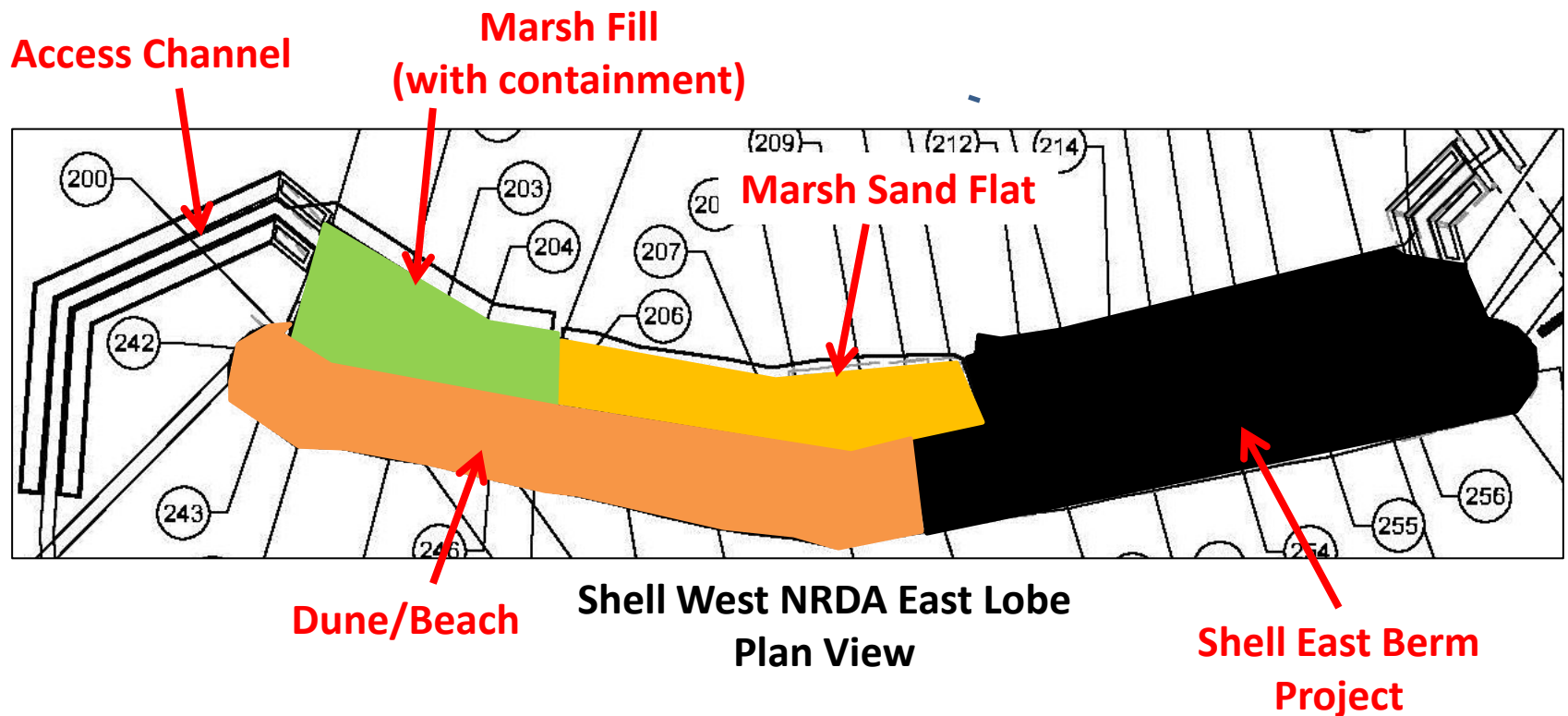
Image # 130903 6305
Date 09.03.13

 727.520.8181
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Project Features – East Lobe (as of May 2013)

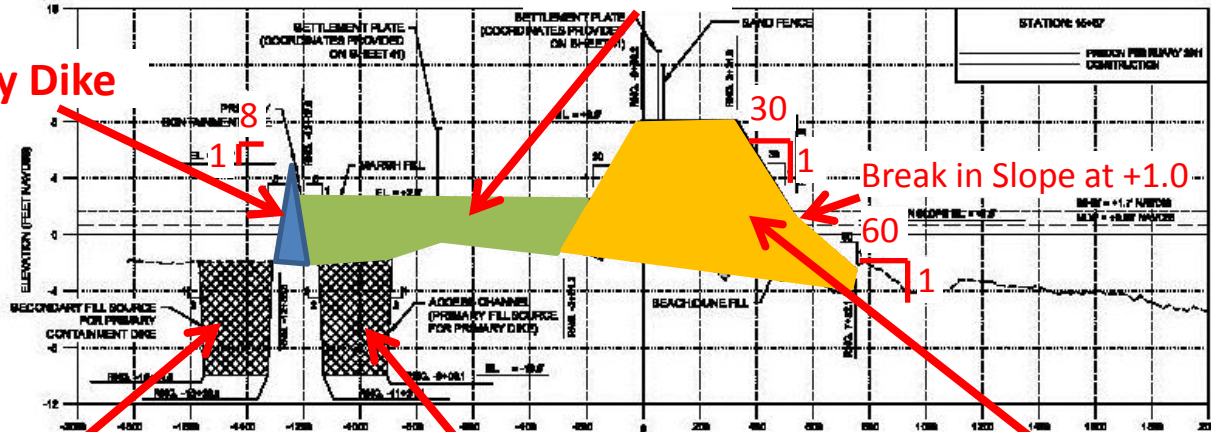
Shell West NRDA East Lobe features include:

- Marsh fill platform at approximately 3,000 linear feet
 - +2.5' NAVD88
 - Containment dike
 - 486,200 cy
 - 60 acres



Marsh Fill

Primary Dike



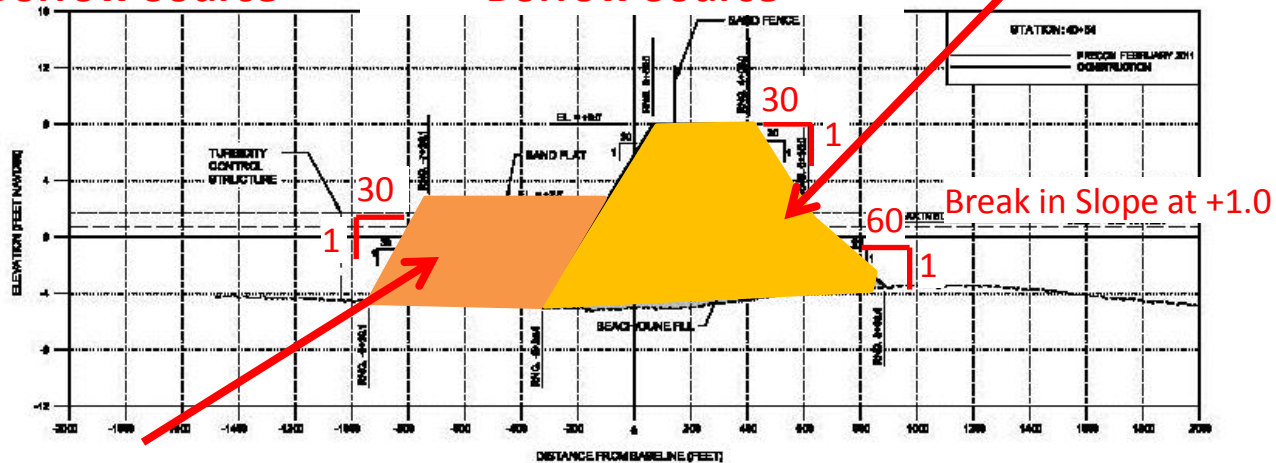
Containment Dike

Containment Dike Primary

Dune/Beach

Secondary Borrow Source

Borrow Source



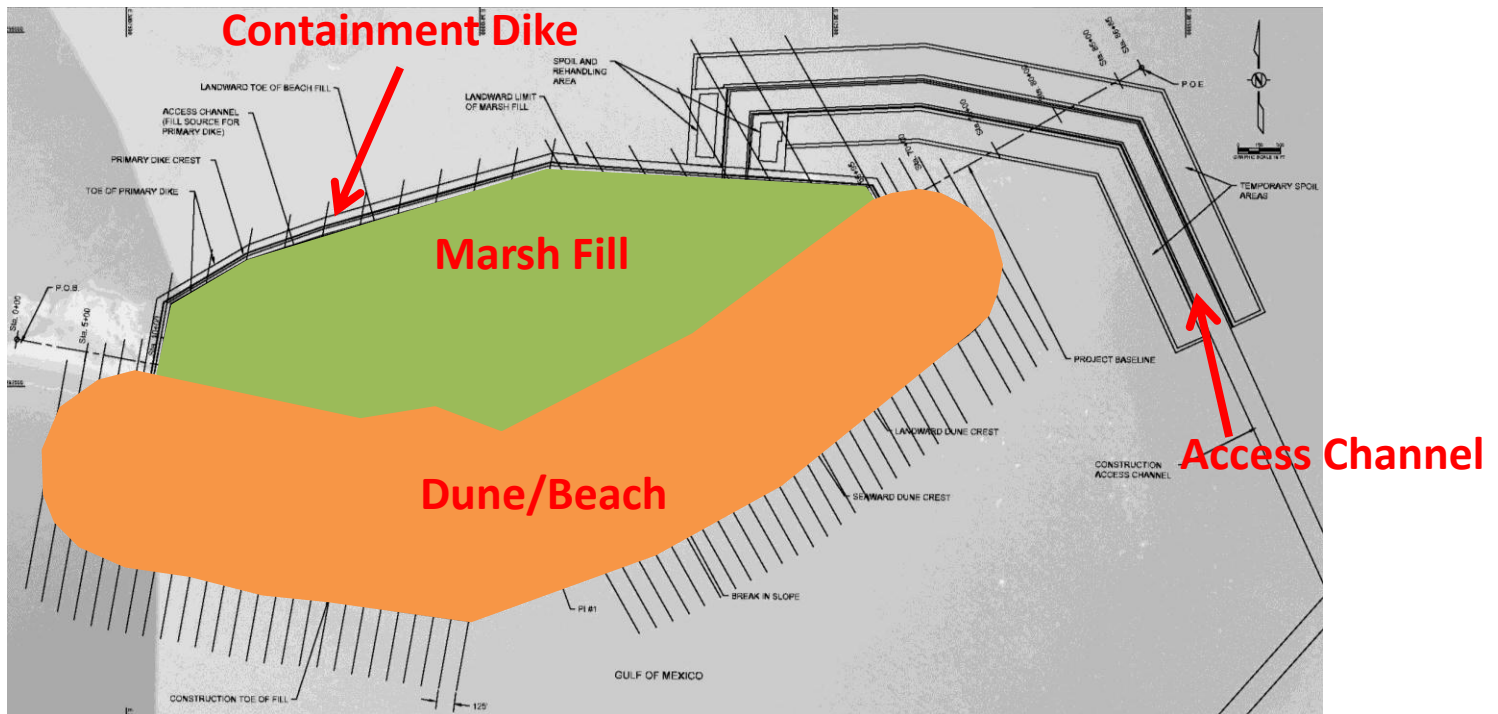
Marsh Sand Flat

Shell West NRDA East Lobe Typical Cross-sections

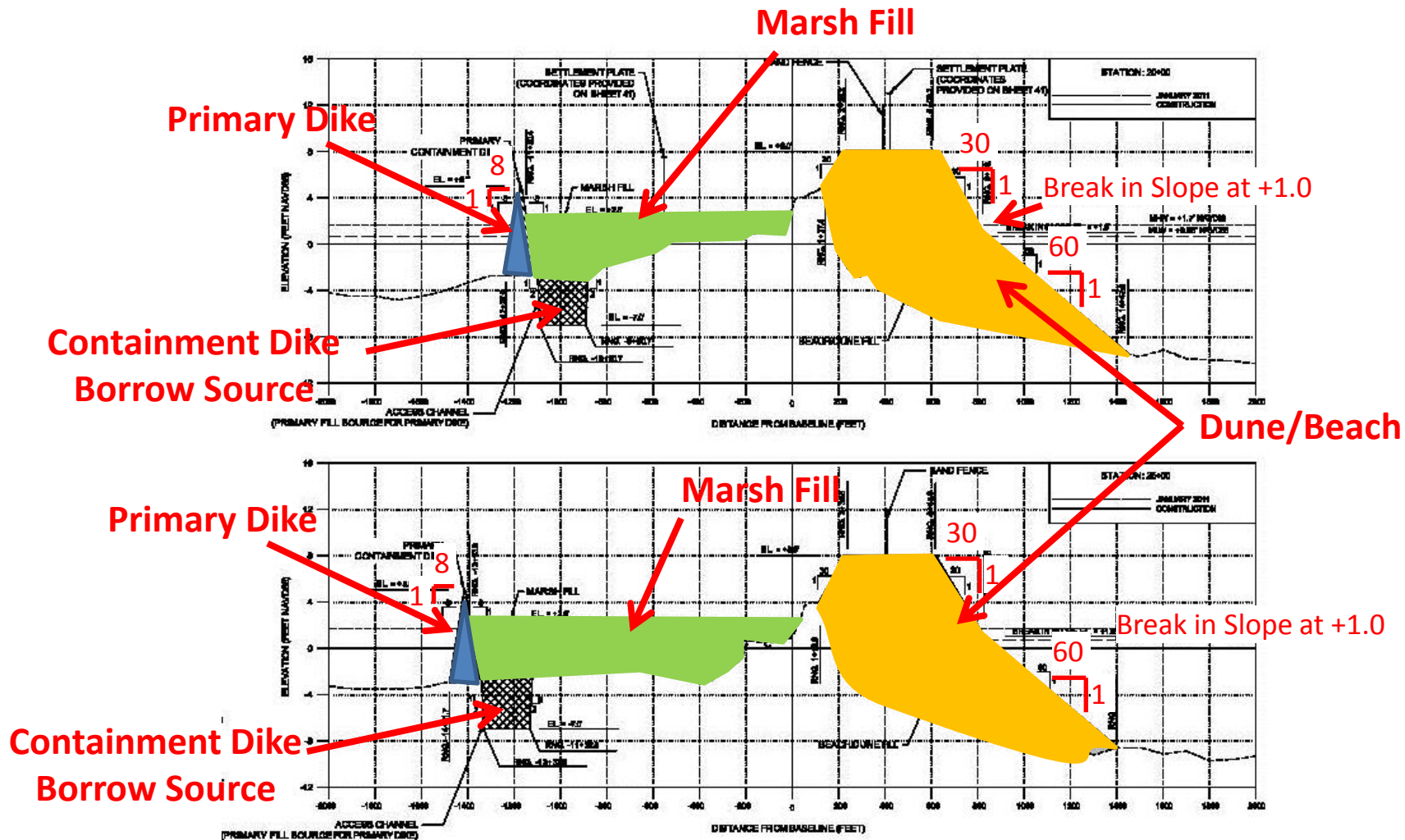
Project Features – West Lobe

Shell West NRDA West Lobe features include:

- Beach/dune/drift for a approximately 5,5000 linear feet
 - +2.6' NAVD88
 - Uniform width of 380'
 - 878,000 cy
 - 194 acres

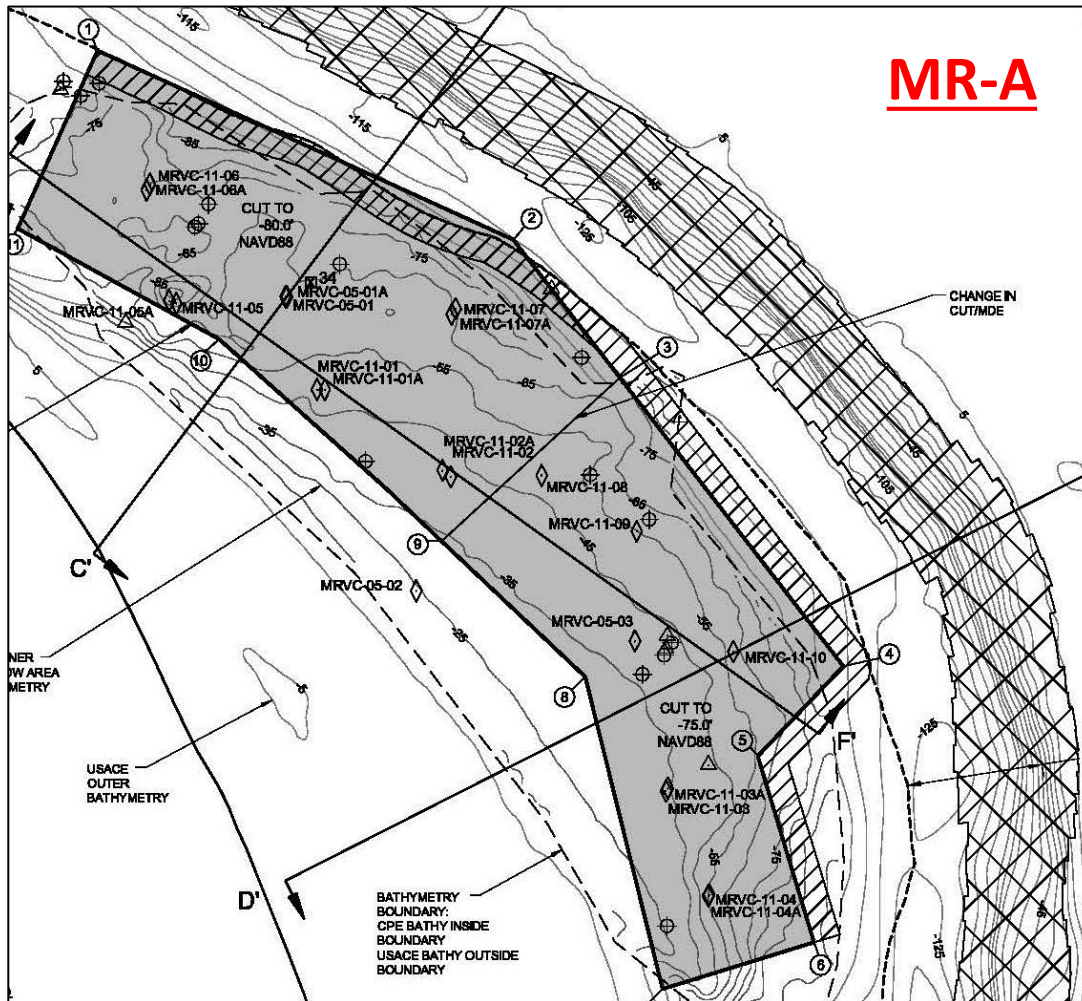


Shell West NRDA West Lobe Plan View



Shell West NRDA West Lobe
Typical Cross-sections

Project Features – Mississippi River Borrow Areas



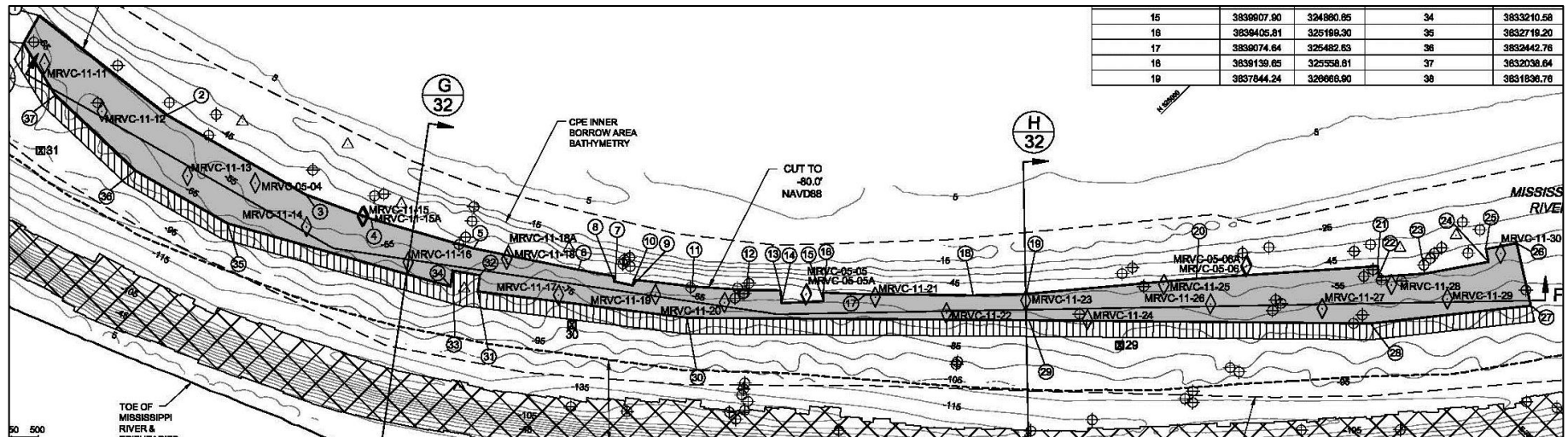
- 5.3 MCY (Volume are based on pre-Shell East surveys)
- Cut depths to -75' NAVD88 and -80' NAVD88

Shell West NRDA Dune/Beach and Sand Flat Borrow Areas

Project Features – Mississippi River Borrow Areas

MR-B

- 3.96 MCY (Volume are based on pre-Scofield surveys)
- Cut depths to -80' NAVD88

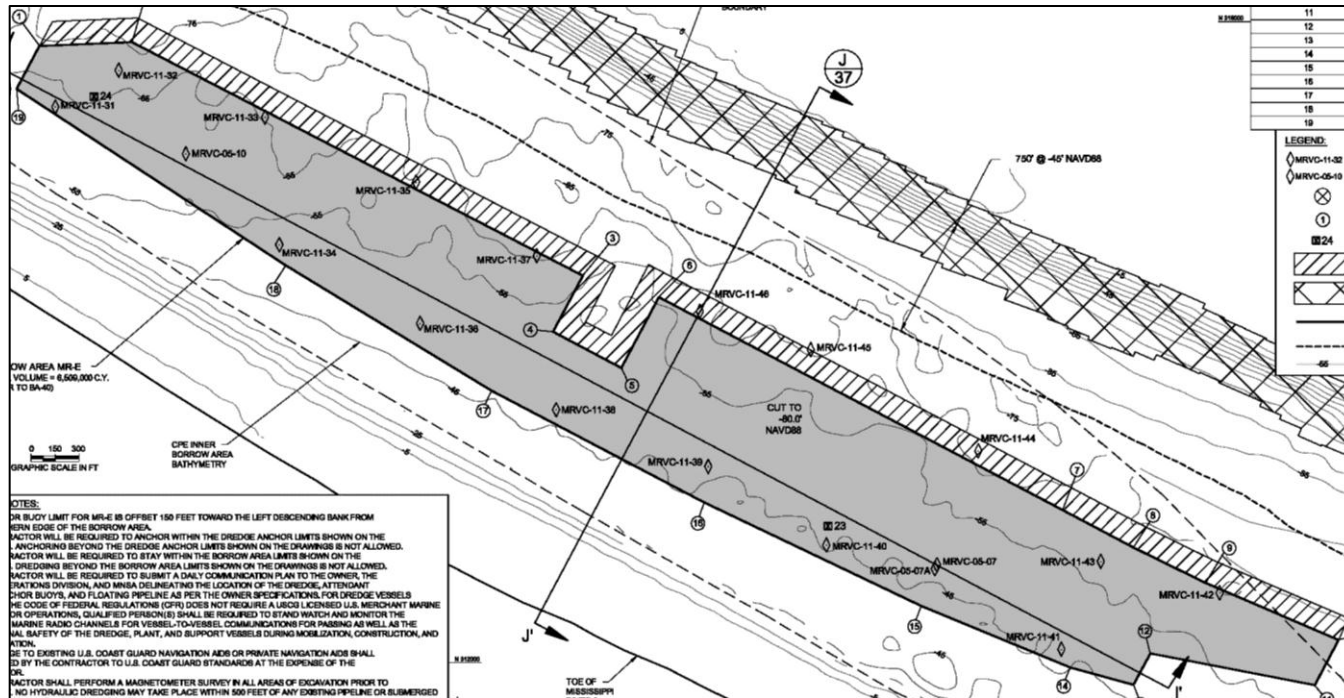


Shell West NRDA Dune/Beach and Sand Flat Borrow Areas

Project Features – Mississippi River Borrow Areas

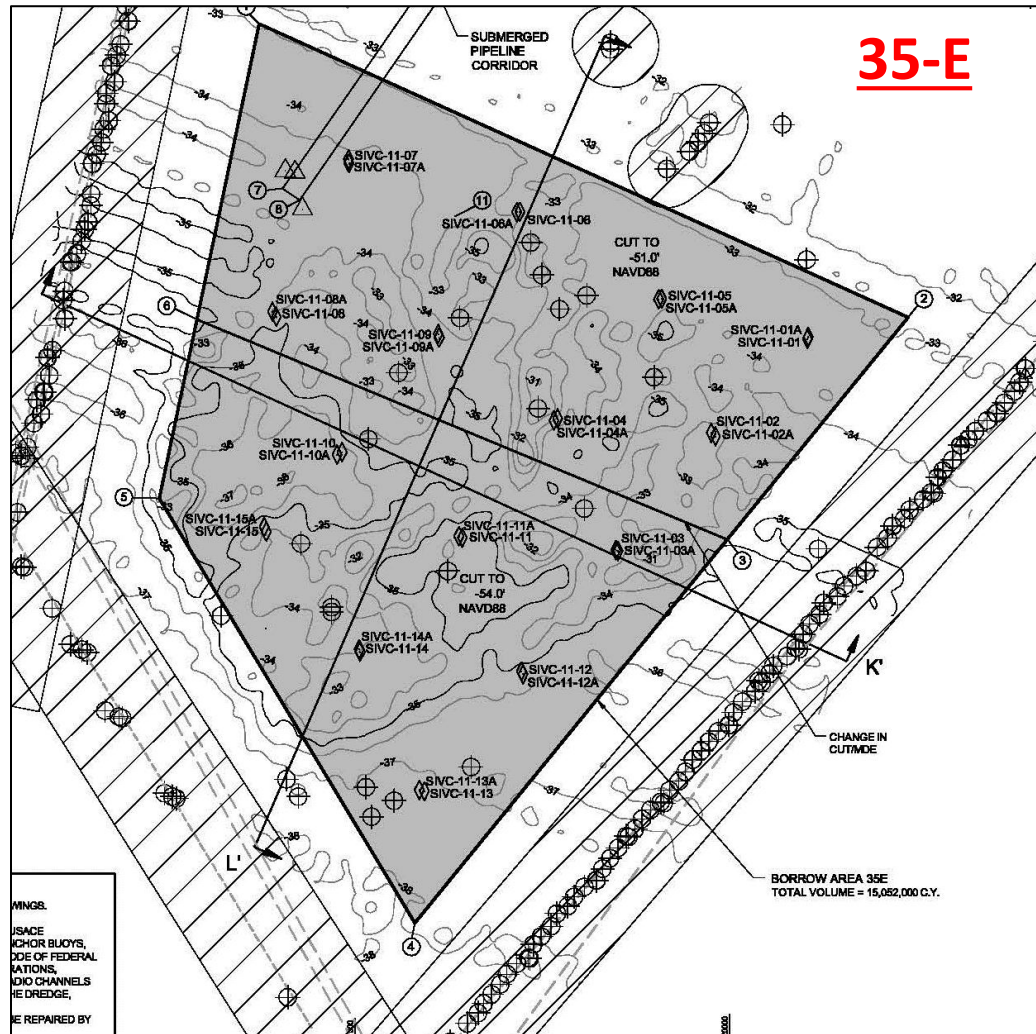
MR-E

- 3.5 MCY (Volume are based on Post-Construction Shell East surveys)
- Cut depths to -80' NAVD88



Shell West NRDA Dune/Beach and Sand Flat Borrow Areas

Project Features – Offshore Borrow Area



- 15 MCY (Volume are based on pre-Shell East surveys)
- Cut depths to -51.0' NAVD88 and -54.0' NAVD88

Shell West NRDA Offshore Marsh Fill Borrow Area

Project Schedule

- **Tasks Completed:**
 - Bathymetric and Topographic Surveys – February 2011 and January 2012
 - Geophysical Investigation and Final Report (Borrow Areas)– May 2012
 - Geotechnical Investigation and Final Report (Fill Area) – August 2012
 - Coastal Use Permit – August 2012, Modification – June 2013
 - COE 404 Permit – October 2012, Modification – Not Required
 - LDWF Fill Material Permit – February 2013
 - Engineering and Design
- **Future Tasks:**
 - Update Bathymetric and Topographic Survey
 - Update E&D
 - Bid Process – Availability of Funding

Project Summary

- Dune/Beach Fill Volume: 5,073,000 cy
- Marsh Fill Volume: 1,123,000 cy
- Area of Fill: 342 acres
- Primary Dike: 10,790 linear feet
- Sand Fencing: 14,400 linear feet
- Settlement Plates: 17 plates

QUESTIONS